WHAT IS CLAIMED:

1. A signal conductor, comprising:

a first connector;

a cable connected at a first end to the first connector; and

a second connector connected to a second end of the cable, the second connector comprising:

a signal processing element configured to process signals transmitted between the first and second connectors.

2. The signal conductor of claim 1, wherein the first connector connects to a network device and the second connector connects to a patch panel.

3. The signal conductor of claim 1, wherein the first connector connects to a patch panel and the second connector connects to a network device.

4. The signal conductor of claim 1, wherein the signal processing element comprises:

a pulse transformer configured to translate the signals between balanced signals and single ended signals.

5. The signal conductor of claim 4, wherein the signal processing element further comprises:

a common mode choke configured to remove common mode noise from the balanced signals.

6. The signal conductor of claim 1, wherein the cable includes a shielded cable.

7. The signal conductor of claim 1, wherein the cable comprises:

a transmit cable configured to transmit signals from the first connector to the second connector, and

a receive cable configured to transmit signals from the second connector to the first connector.

8. The signal conductor of claim 7, wherein the signal processing element includes:

a first pulse transformer configured to translate signals received from the transmit cable from first single ended signals to first balanced signals, and

a second pulse transformer configured to translate signals from second balanced signals to second single ended signals for transmission to the receive cable.

9. The signal conductor of claim 8, wherein the signal processing element further includes:

a first common mode choke configured to remove common mode noise from the first balanced signals, and

a second common mode choke configured to remove common mode noise from the second balanced signals.

10. The signal conductor of claim 9, wherein the first pulse transformer and the first common mode choke are located on a first side of the second connector and the second pulse transformer and the second common mode choke are located on a second side of the second connector.

11. The signal conductor of claim 1, wherein the first connector includes a very high density cable interconnect.

12. The signal conductor of claim 1, wherein the second connector includes a telephone company connector.

13. A network system, comprising:

a network device configured to communicate signals on a network; and

a plurality of signal conductors connected to the network device, each of the signal conductors comprising:

a first connector connected to the network device,

a cable connected at a first end to the first connector, and

a second connector connected to a second end of the cable, the second connector comprising:

a signal processing element configured to process signals communicated with the network device.

14. The network system of claim 13, wherein the network device is a router.

15. The network system of claim 13, wherein the second connector is configured to connect to a patch panel.

16. The network system of claim 13, wherein the signal processing element includes:

a pulse transformer configured to convert the signals communicated with the network device between balanced signals and single ended signals.

17. The network system of claim 16, wherein the signal processing element further includes:

a common mode choke configured to remove common mode nose from the balanced signals.

18. The network system of claim 13, wherein the cable comprises:

a transmit cable configured to transmit signals from the first connector to the second connector, and

a receive cable configured to transmit signals from the second connector to the first connector.

19. The network system of claim 18, wherein the signal processing element includes:

a first pulse transformer configured to translate signals received from the transmit cable from first single ended signals to first balanced signals, and

a second pulse transformer configured to translate signals from second balanced signals to second single ended signals for transmission to the receive cable.

20. The network system of claim 19, wherein the signal processing element further includes:

a first common mode choke configured to remove common mode noise from the first balanced signals, and

a second common mode choke configured to remove common mode noise from the second balanced signals.

21. The network system of claim 20, wherein the first pulse transformer and the first common mode choke are located on a first side of the second connector and the second pulse transformer and the second common mode choke are located on a second side of the second connector.

22. The network system of claim 13, wherein the cable includes a shielded cable.

23. The network system of claim 13, wherein the first connector includes a very high density cable interconnect.

24. The network system of claim 13, wherein the second connector includes a telephone company connector.

25. A network system, comprising:

a network device configured to communicate signals on a network; and

a plurality of signal conductors connected to the network device, each of the signal conductors comprising:

a first connector connected to the network device, the first connector comprising:

a signal processing element configured to process signals communicated with the network device,

a cable connected at a first end to the first connector, and

a second connector connected to a second end of the cable.

26. The network system of claim 25, wherein the second connector is configured to connect to a patch panel.

27. The network system of claim 25, wherein the signal processing element includes:

a pulse transformer configured to convert the signals between balanced signals and single ended signals.

28. The network system of claim 27, wherein the signal processing element further includes:

a common mode choke configured to remove common mode nose from the balanced signals.

29. The network system of claim 25, wherein the cable comprises:

a transmit cable configured to transmit signals from the first connector to the second connector, and

a receive cable configured to transmit signals from the second connector to the first connector.

30. The network system of claim 29, wherein the signal processing element includes:

a first pulse transformer configured to translate signals received from the transmit cable from first single ended signals to first balanced signals, and

a second pulse transformer configured to translate signals from second balanced signals to second single ended signals for transmission to the receive cable.

31. The network system of claim 30, wherein the signal processing element further includes:

a first common mode choke configured to remove common mode noise from the first balanced signals, and

a second common mode choke configured to remove common mode noise from the second balanced signals.

32. The network system of claim 25, wherein the cable includes a shielded cable.

33. A patch panel, comprising:

a plurality of first connectors, at least one of the first connectors being configured to connect to a network device via a cable;

a plurality of groups of second connectors, each of the groups of second connectors corresponding to one of the first connectors; and

a plurality of signal processing elements, each of the signal processing elements being configured to process signals transmitted between one of the first connectors and one of the groups of second connectors.

34. The patch panel of claim 33, wherein each of the signal processing elements includes:

a pulse transformer configured to translate the signals communicated between the one first connector and the one group of second connectors between balanced signals and single ended signals.

35. The patch panel of claim 34, wherein each of the signal processing elements further includes:

a common mode choke configured to remove common mode noise from the balanced signals.

36. The patch panel of claim 33, wherein the cable includes a shielded cable that extends shielding from the network device to the plurality of signal processing elements.

37. The patch panel of claim 33, wherein the cable includes transmit and receive cables, the transmit cable transmitting signals from the network device to the patch panel and the receive cable transmitting signals from the patch panel to the network device.

38. The patch panel of claim 37, wherein each of the signal processing elements includes:

a first pulse transformer configured to convert signals received from the transmit cable from first single ended signals to first balanced signals, and

a second pulse transformer configured to convert signals from second balanced signals to second single ended signals for transmission to the receive cable.

39. The patch panel of claim 38, wherein each of the signal processing elements further includes:

a first common mode choke configured to remove common mode noise from the first balanced signals, and

a second common mode choke configured to remove common mode noise from the second balanced signals.

40. A network system, comprising:

a network device configured to communicate signals on a network; and

a patch panel configured to communicate signals with the network device via a plurality of cables, the patch panel comprising:

a plurality of a pulse transformers configured to convert signals between balanced signals and single ended signals, and

a plurality of common mode chokes corresponding to the pulse transformers and configured to remove common mode noise from the balanced signals.

41. The network system of claim 40, wherein the network device includes a router.

42. The network system of claim 40, wherein each of the cables includes a shielded cable that extends shielding from the network device into the patch panel.

43. The network system of claim 40, wherein each of the cables includes transmit and receive cables, the transmit cable transmitting signals from the network device to the patch panel and the receive cable transmitting signals from the patch panel to the network device.

44. The network system of claim 43, wherein the plurality of pulse transformers include:

a plurality of first pulse transformers configured to translate signals received from the transmit cables from first single ended signals to first balanced signals, and

a plurality of second pulse transformers configured to translate signals from second balanced signals to second single ended signals for transmission to the receive cables.

45. The network system of claim 44, wherein the plurality of common mode chokes include:

a plurality of first common mode chokes corresponding to the first pulse transformers and configured to remove common mode noise from the first balanced signals, and

a plurality of second common mode chokes corresponding to the second pulse transformers and configured to remove common mode noise from the second balanced signals.

46. A signal conductor comprising:

a first connector;

a cable connected at a first end to the first connector; and

a second connector connected to a second end of the cable, the second connector comprising:

means for processing signals transmitted between the first and second connectors.

47. The signal conductor of claim 46, wherein the means for processing includes:

means for translating the signals between balanced signals and single ended signals, and

means for removing common mode noise from the balanced signals.

48. A patch panel comprising:

means for providing a plurality of first connectors configured to connect to a network device via one or more cables;

means for providing a plurality of groups of second connectors, each of the groups of second connectors corresponding to one of the first connectors; and

means for processing signals transmitted between each of the first connectors and a corresponding one of the groups of second connectors.

49. The patch panel of claim 48, wherein the means for processing includes:

means for translating the signals between balanced signals and single ended signals, and

means for removing common mode noise from the balanced signals.